

16 Leads - TSSOP
Package Material Declaration



Date	16-Mar-21	Product name	Integrated Circuit
Package Code	GO	RoHS Compliant	Y
Package Name	Thin Plastic Shrink Small Outline 173mil	Halogen Free	Y
Product Total Mass (g)	0.06183	Plating	Pure Matte Sn

Product Number	MLX90422
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Material Declaration

Part Name	Material Name	Component Weight (g)	Material Component (Element)	CAS #	Element ratio (%)	Material Weight (g)	Ratio total Wt (ppm)
Leadframe	Copper Nickel C7025	0.01881	Copper (Cu) (remaining)	7440-50-8	95.025	0.01787	289107
			Iron (Fe) (0.2 max)	7439-89-6	0.1	0.000019	304
			Lead (Pb) (0.005 max)	7439-92-1	0.025	0.0000047	76
			Cobalt (Co) (0.4 max)	7440-48-4	0.2	0.00004	608
			Nickel (Ni) (2.2~4.2%)	7440-02-0	3.2	0.00060	9736
			Zinc (Zn) (1.0 max)	7440-66-6	0.5	0.000094	1521
			Manganese (Mn) (0.10 max)	7439-96-5	0.05	0.000009	152
			Silicon (Si) (0.25~1.2%)	7440-21-3	0.725	0.00014	2206
			Magnesium (Mg) (0.05~0.3%)	7439-95-4	0.175	0.00003	532
Plating	Silver	0.00019	Silver (Ag)	7440-22-4	100	0.00019	3073
Die	Silicon 1	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	48842
			others	-	0.01	0.0000003	5
	Silicon 2	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	48842
			others	-	0.01	0.0000003	5
IMC	S-FeNi-8	0.000012	Iron (Fe)	7439-89-6	19.75	0.0000024	38
			Nickel (Ni) (0.0 ~ 80%)	7440-02-0	40	0.0000048	78
			Molybdenum (Mo) (0.0 ~ 80%)	7439-98-7	40	0.0000048	78
			others (max. 0.5%)	-	0.25	0.00000003	0.5
Die attach material	Epoxy Adhesive 84-3	0.00067	Quartz (SiO2)	14808-60-7	55	0.00037	5960
			Epoxy resin	-	43.605	0.00029	4725
			Dimethyl silicone polymer with silica	67762-90-7	0.75	0.00001	81
			Diiron-trioxide	1309-37-1	0.25	0.000002	27
			Aluminum oxide	1344-28-1	0.25	0.000002	27
			Titanium-dioxide	13463-67-7	0.075	0.000001	8
			Cu-Phthalocyanin	147-14-8	0.07	0.0000005	8
		0.00067	Quartz (SiO2)	14808-60-7	55	0.00037	5960
			Epoxy resin	-	43.605	0.00029	4725
			Dimethyl silicone polymer with silica	67762-90-7	0.75	0.00001	81
			Diiron-trioxide	1309-37-1	0.25	0.000002	27
			Aluminum oxide	1344-28-1	0.25	0.000002	27
			Titanium-dioxide	13463-67-7	0.075	0.000001	8
			Cu-Phthalocyanin	147-14-8	0.07	0.0000005	8
Wire	Gold with Palladium	0.00056	Gold (Au)	7440-57-5	99	0.00055	8967
			Palladium (Pd)	7440-05-3	1	0.0000056	91
Lead Finish	Tin	0.00126	Tin (Sn)	7440-31-5	99.99	0.00126	20436
			Others	-	0.01	0.0000001	2
Encapsulation	Silica EP G700HA	0.03361	Silica fused	60676-86-0	78	0.02622	424028
			Silicon dioxide	7631-86-9	9.5	0.00319	51644
			Epoxy Resin	-	7.5	0.00252	40772
			Phenol Resin	-	4.5	0.00151	24463
			Carbon Black	1333-86-4	0.5	0.00017	2718

Total package weight (g) 0.06183

Comments

- Composition derived from MSDS and material CoC from vendors
- Component weight based on assembly of generic parts
- Reliability qualification reports are available upon request through the appropriate sales or marketing contact
- Third party testing for RoHS substances are available upon request to environment@melexis.com

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